

Claims

What is claimed:

1. A method for generating a subscriber profile for a subscribed user of television or multimedia programming, the method comprising the steps of:
 - (a) monitoring user viewing activities;
 - (b) collecting raw subscriber selection data based on source material selected by the user over a predetermined period of time;
 - (c) evaluating the raw subscriber selection data to filter out irrelevant data and generate a record of actual subscriber selection data; and
 - (d) processing the actual subscriber selection data to create a subscriber profile.
2. The method of claim 1, wherein the source material corresponds to analog video, Motion Picture Expert Group, digital video, Hypertext MarkUp Language material, and other multimedia source material supplied by a provider of the television programming to the user.
3. The method of claim 1, wherein step (a) comprises the step of monitoring volume control commands initiated by the user.
4. The method of claim 1, wherein step (a) comprises the step of monitoring channel change commands initiated by the user.
5. The method of claim 1, wherein step (a) comprises the step of monitoring record signals initiated by the user.

6. The method of claim 1, wherein step (b) comprises the step of extracting source related text from the source material.

7. The method of claim 6, wherein the source related text includes one or more descriptive fields.

8. The method of claim 6, wherein the source related text is extracted from an electronic program guide of the source material.

9. The method of claim 6, wherein the source related text is extracted from one or more HTML files related to the source material.

10. The method of claim 6, wherein the source related text is extracted from the close captioning information of the source material.

11. The method of claim 1, wherein step (b) further comprises the step of monitoring time durations wherein the time durations correspond to viewing times of selected source material.

12. The method of claim 1, wherein step (c) comprises the step of evaluating channel change commands and associated viewing times.

13. The method of claim 12, further comprising the step of filtering out any channel change commands if the associated viewing times are below a pre-determined threshold.

14. The method of claim 13, wherein the filtered out channel change commands correspond to channel surfing activities.

15. The method of claim 13, wherein the filtered out channel change commands correspond to channel jumping activities.

16. The method of claim 1, wherein step (c) comprises the step of evaluating viewing times and filtering out any viewing periods if no user activity has been received within a pre-determined period of time.

17. The method of claim 17, wherein the filtered out viewing periods correspond to dead periods implying that user is not actively watching the television or multimedia programming.

18. The method of claim 1, wherein the step (d) comprises the step of generating one or more program characteristics vectors based on the subscriber selection data.

19. The method of claim 18, wherein the program characteristics vectors are one or more values characterizing the source material.

20. The method of claim 1, wherein step (d) corresponds to a n-dimensional program characteristics matrix comprising one or more program characteristics vectors.

21. The method of claim 1, wherein step (d) further comprises the step of processing subscriber selection data based on a pre-determined set of heuristic rules.

22. The method of claim 21, wherein the heuristic rules are described in logical forms.

23. The method of claim 21, wherein the heuristic rules are expressed as conditional probabilities.

24. The method of claim 1, wherein the subscriber profile is a profile based on the user interests.

25. The method of claim 1, wherein the subscriber belongs to a household and the subscriber profile is a profile based on the interests of the user household.

26. The method of claim 1, wherein the subscriber belongs to a household and the subscriber profile is a demographic profile for the user, the demographic profile indicating the probable age, income, gender, and other demographics.

27. The method of claim 1, wherein the subscriber selection data corresponds to a viewing session and the subscriber profile is a session demographic profile for the user.

28. The method of claim 1, wherein the subscriber selection data corresponds to a plurality of viewing sessions and the subscriber profile is an average demographic profile for the user.

29. The method of claim 1, wherein the subscriber profile is a program preference profile for the user, the program preference profile indicating the type of programming of interest to the user.

30. The method of claim 1, wherein the subscriber profile is a product preference profile for the user.

31. The method of claim 1, wherein the subscriber belongs to a household and the subscriber profile comprises household demographic data indicating probabilistic measurements of household demographics.

32. The method of claim 1, wherein the subscriber belongs to a household and the subscriber profile comprises household program preference information indicating probabilistic measurements of household program interests.

33. The method of claim 1, wherein the subscriber belongs to a household and the subscriber profile comprises household product preference information indicating probabilistic measurements of household product interests.

34. The method of claim 1, wherein the subscriber selection data corresponds to a viewing session of the user household and the subscriber profile is a session demographic profile for the user household.

35. The method of claim 1, wherein the subscriber selection data corresponds to a plurality of viewing sessions and the subscriber profile is an average demographic profile for the user household.

36. The method of claim 1, wherein the subscriber profile is controlled by the user.

37. The method of claim 1, wherein the subscriber profile is analyzed by a third party for the purposes of marketing and advertising.

38. The method of claim 1, wherein the access to the subscriber profile has been limited to a selected number of other parties.

39. The method of claim 1, further comprising the step of analyzing the subscriber profile to estimate user viewing habits.

40. A data processing system for generating a subscriber profile for a subscribed user of television programming, the data processing system comprising:

- (a) computer processor means for processing data;
- (b) storage means for storing data on a storage medium;
- (c) a first computer means for monitoring subscriber activity and creating a record of raw subscriber selection data wherein the raw subscriber selection data corresponds to the source material selected by the user;
- (d) filtering means for evaluating the raw subscriber selection data and filtering out the selection data associated with irrelevant activities and for creating a record of an actual subscriber selection data;
- (e) a second computer means for retrieving source related information wherein the source related

CONFIDENTIAL
DO NOT FEDERAL BUREAU OF INVESTIGATION
FBI

information contains descriptive fields corresponding to the actual subscriber selection data; and
(f) a third computer means for processing the subscriber selection data with respect to the descriptive fields to form the subscriber profile.

41. The system of claim 40, wherein the first means for monitoring subscriber activity further comprises means for monitoring time durations wherein the time durations correspond to viewing times of the selected source material.

42. The system of claim 40, wherein the first means for monitoring subscriber activity further comprises means for monitoring volume levels wherein the volume levels correspond to subscriber selection volume levels.

43. The system of claim 40, wherein the filtering means are configured with pre-determined heuristics rules.

44. The system of claim 40, wherein the filtering means filter-out the selection data associated with channel surfing activities.

45. The system of claim 44, wherein the channel surfing activities are recognized by recognizing the channel change commands issued by the subscriber and then evaluating the associated viewing times.

46. The system of claim 40, wherein the filtering means filter-out the selection data associated with channel jumping activities.

47. The system of claim 46, wherein the channel jumping activities are recognized by recognizing the channel change commands issued by the subscriber and then evaluating the associated channel numbers and viewing times.

48. The system of claim 40, wherein the filtering means filter-out the selection data associated with dead periods.

49. The system of claim 48, wherein the dead periods are recognized by recognizing the channel change commands or volume change commands issued by the subscriber and then evaluating the associated viewing times.

50. The system of claim 40, wherein the subscriber profile contains household demographic data indicating probabilistic measurements of household demographics.

51. The system of claim 40, wherein the subscriber profile contains household program preference information indicating probabilistic measurements of household program interests.

52. The system of claim 40, wherein the subscriber profile contains household product preference information indicating probabilistic measurements of household product interests.